

Presentation to U.S. House of Representatives  
Committee on Agriculture  
Subcommittee on Conservation, Credit, Rural Development and Research  
Hearing at the University of Georgia Center for Continuing Education  
Athens, Georgia  
March 29, 2004

“Family and Consumer Sciences Extension and Research:  
A Valuable Investment”

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Mr. Chairman, members of the Subcommittee, staff, and guests, thank you for the opportunity to present testimony regarding the activities of the College of Family and Consumer Sciences as partners in the delivery of Cooperative Extension programs and contributors to the research endeavors addressing human capacity building, environment, and economic development. Investing in family and consumer sciences research and educational programs delivered through the Georgia Cooperative Extension Service results in a healthier and more educated workforce; saves state and federal agencies, and families, the cost of expensive remedial treatment for nutrition-related diseases; contributes resources to local economies; and enhances the quality of life for families and consumers in rural and urban areas.

I would like to set the stage for why Georgia needs family and consumer sciences research and Extension programs. Then, I will mention just a few highlights of the programs in Cooperative Extension and some of the research projects that address the needs of the state. The scope of our research and public service go far beyond the things that are in the spotlight today, not to mention our teaching programs. One of the sterling qualities of the land-grant university is the ability to integrate these functions and to work collaboratively with campus-based colleagues such as those in the College of Agricultural and Environmental Sciences whose work is being presented by Dr. Melvin Garber. Finally, I can't pass up the opportunity to share with you some of the things we need to continue serving the public and fulfilling our mission.

**The Need: Who are Georgia's Families and Consumers?**

There are 8.6 million citizens living in the State of Georgia in 2004. Georgia is not only a large state geographically, but we have the tenth largest population of any state in the nation. During the decade of the 1990s, Georgia's population grew by 26%.

This population growth brought more diversity to the state. African Americans

comprise 28.7% of the population, the fifth highest percentage of African Americans in any state. An estimated 300% growth in the Latino population moved Latinos from being hardly a blip on the population charts in 1990 to being a significant figure in 2000. Officially Latinos are 5% of the population, although our demographer estimates that 13% is probably a more accurate figure. Immigrants from many other parts of the world have dramatically changed the composition of communities in many areas of the state.

Georgia is a “young” state in terms of population statistics. About 26% of the population is under the age of 18, a higher proportion than most other states, with 20% more children ages infancy to four than in the previous decade. But, the state’s population is also growing older. Georgia recorded a 52% increase in those age 65 and older during the past decade, and the predictions are that this trend will continue as Georgia is a highly desirable retirement destination.

In Georgia, a higher percentage of parents of young children are employed than the national average. The parents are employed in 61% of Georgia’s families with preschoolers and 73% in families with children 6 to 17 years of age. Child care is the third highest household expense for most families of young children. The need for high quality child care is evident when we understand these numbers and the fact that early brain development sets the stage for later school success and fosters emotionally secure, self-confident children. Concern about the overall development of our children is raised by Georgia’s low ranking at 41 out of 50 states on overall quality of life on ten indicators including health, adequacy of income, and educational attainment.

Georgia has traditionally had low income levels. Today, the percentage of persons living in poverty in Georgia is higher than the national figure. Although the rate of poverty (the percentage living below the poverty line) declined somewhat during the economic boom of the 1990s, the actual **number** of Georgians below the poverty line increased along with the increase in population. It is estimated that 1.1 million Georgians (approximately 13%) live at or below the poverty line. Of the 242 counties designated as “persistently poor” in a recent study of 11 Southern states, 91 are located in Georgia. Money management is a challenge for low-income households, but it is also a challenge for those at higher income levels. Consumer debt continues to rise and approximately 1 in 46 Georgia households file for bankruptcy, the third highest rate in the nation. Consumer fraud is a problem too. Over 5,000 complaints of fraud and identity theft were reported in 2001.

Housing is again on the agenda of concerns about families’ quality of life and the status of the rural economy in Georgia. Housing construction is virtually nonexistent in nearly half of Georgia’s counties. The absence of housing construction contributes to a lack of housing choices for consumers, the aging of the existing housing stock, and limited

economic development in communities. Workforce housing (i.e, housing that is affordable at the prevailing wages of workers) is in scarce supply in most rural areas. Many environmental hazards associated with chronic health conditions are present in aging housing stock of Georgia.

Over 400,000 Georgians have been diagnosed with diabetes, a disease that contributes to many other chronic illnesses, including kidney disease, stroke, heart disease, and blindness. Georgia has higher rates of cardiovascular disease than most other states. These problems are likely to get worse because the precursor of many of our health problems is overweight and obesity. Approximately 14% of children, 12% of adolescents, and over 55% of adults in Georgia are overweight or obese. Georgia has the highest rate of obesity in the nation, a dubious distinction that costs the state and our citizens millions of dollars in mostly preventable health care expenditures.

Another cost in medical expenses and productivity losses is due to food borne illnesses. Household audits of food safety practices indicate at least one critical food safety violation in 74% of all households. Forty percent of the participants cited lack of knowledge as the reason for food safety violations. Over 16,000 eating establishments in Georgia employ more than 256,000 employees and make over \$9 billion in sales annually. The need for knowledge about safe food and utensil handling among food service employees in both business and institutional settings is great.

### **Priority Programs in FACS Extension: Putting Knowledge to Work**

How is the College of Family and Consumer Sciences (FACS) addressing these issues and the needs of Georgia's individuals, families, consumers and communities? We have set priorities on the issues and targeted the most at-risk families and consumers. Along with focusing our resources on the most critical needs, we are leveraging those resources to secure funding from other sources, thus multiplying the impact of our work.

The priority areas for Family and Consumer Sciences Extension are:

- Food Safety
- Nutrition and Health
- Child and Family Development
- Financial Security
- Housing and Environment

In 2003, we served 170,000 Georgians with educational workshops and programs. About 63% of program participants were low-income. In addition, innovative educational

curriculum materials, web-based information, media presentations, health fairs, and other educational activities reached thousands more and were used by Extension personnel in other states. A few highlights from these priority areas illustrate our “reach and results.”

**Food Safety/Food Handler Education.** FACS Extension reached over 10,300 participants, including commercial and institutional food handlers and school food service personnel with 30,300 food safety educational contact hours. Such educational programming is required for employment in a food service enterprise. As part of a USDA funded project, two new curriculum packages for kindergarten through third grade were introduced to teach food safety based on the *Fight BAC!* curriculum. The program has reached 1,500 children in Georgia in 2003 and over 3,000 books and 400 curriculum kits have been sold nationwide. (Project funding from USDA: \$539,600)

**National Center for Home Food Processing and Preservation.** The University of Georgia, College of Family and Consumer Sciences and Georgia Cooperative Extension, are home to this center, which evaluates and provides home food preservation recommendations. Training was provided to 1,405 participants in 2003, and thousands of copies of *So Easy to Preserve* were sold. The web site (<http://www.uga.edu/nchfp/>) receives hundreds of “hits” weekly. (USDA funding: \$2.4 million over five years.)

**Child Care Training.** Approximately 12,000 child care workers received training and 17,000 parents, grandparents, and others who care for children participated in programs focusing on Better Brains for Babies and Basic Health and Safety in the Early Childhood Classroom. FACS Extension is the largest single sources of community-based education for Georgia child care providers, and is particularly important in rural areas where other sources are not available. Such training is required for centers to maintain state licensing. (Georgia Child Care Council funding: \$215,274 over three years.)

**CYFAR: Children, Youth & Families at Risk.** Community based programs to building youth skills serves 32 fourth and fifth grade boys performing below grade level in Candler County. The goal is to increase academic success and leadership development, while supporting parents in their parenting role. The Voz de la Familia project in Colquitt County focuses on migrant farm worker adults and youth in their families, to improve English language skills and enhance consumer knowledge and family well-being. (USDA funding: \$500,000 over five years.)

**Nutrition Education, EFNEP, FNP.** Foods and nutrition education programs reached 101,000 Georgians in 2003, including 5,600 individuals participating in the diabetes education program. The *Walk-A-Weigh* program increased exercise and promoted weight loss, reduced blood glucose level (67% of participants), reduced high blood pressure (56%), and decreased total cholesterol (45%). The Expanded Foods and Nutrition

Education Program (EFNEP) reached 12,500 individuals, including 8,500 youth in Georgia. Graduates of the EFNEP program saved approximately \$11.30 per month on food and increased their vegetable consumption 30%. Matched 100% with local and state funds, the federally-funded Family Nutrition Program provided classes in food safety, healthy food choices, and food budgeting to Food Stamp and Food Stamp-eligible clients. Para-professionals employed by EFNEP and FNP increased their household incomes and improved their educational levels and leadership roles in their communities. (USDA funding: \$2.1 million for EFNEP; \$1.3 million for FNP.)

**Consumer Financial Literacy Program.** Consumers in ten rural counties in Southwest Georgia increased their knowledge about financial management, debt reduction, and improved consumer decision-making. More than 80% of the clientele were able to claim the Earned Income Credit and other tax credits, resulting in a total value of more than \$1.3 million in tax refunds returned to the local economies. An additional 10 counties were added in 2004. (Funding from Governor's Office on Consumer Affairs: \$500,000.)

**Housing and Environment.** FACS Extension obtained certification from the U.S. Department of Housing and Urban Development as a housing counseling agency based on previous programs providing home buyer education. A study of workforce housing in Georgia identified barriers to housing affordability in rural Georgia. Then collaborations with employers, bankers, and community agencies were developed to promote access to decent housing, a goal especially important to the many new Latino residents in the state. Programs in collaboration with the Georgia Department of Natural Resources and the U.S. Environmental Protection Agency enabled nearly 5,000 families to test their homes for radon gas. (Funding in excess of \$250,000 from various state and federal sources.)

## **Research--Knowledge for Real Life**

As with the Cooperative Extension programs, family and consumer sciences research, which is supported with assistance from the Georgia Agricultural Experiment Stations (GAES), focuses on relevant issues to Georgia's food and fiber industries and the ultimate use of these products by consumers to meet nutritional, economic, and community goals. Seventeen College of Family and Consumer Sciences faculty members direct studies with GAES connections. Their appointments are equivalent to 3.5 full-time positions. They are assisted by 8 technicians supported by the Agricultural Experiment Stations.

The main areas of study which have Agricultural Experiment Station support are:

--Cotton Processing and Barrier Effectiveness of Textile Materials

--Nutrition

--Consumer Behavior, Housing, and Poverty

**Cotton Processing.** The study of new applications of enzymes to cotton fiber and fabric to produce improved properties is designed to reduce the negative environmental impact of traditional chemical treatments. Preliminary studies conducted in collaboration with scientists at the Russell Research Lab indicate the use of enzymes is both viable and realistic economically. A relatively recent line of inquiry involves studies to improve accuracy and efficiency in assessing the quality of cotton for use simultaneously by fiber producers, ginner, and textile manufacturers. This could reduce the duplication and costs of testing and improve fiber quality for the market, thus strengthening the economic position of Georgia's cotton producers and processors. Finding alternative and additional uses for cotton is being explored with the combination of cotton and flax. Identifying the value-added properties and possible end uses for these non-woven fabrics for industrial uses is the objective of this study. Since both cotton and flax are biodegradable, the combination may provide a more environmentally and socially acceptable product versus fabrics based on petroleum products. (Funding from industry and the Georgia Traditional Industries program in excess of \$246,000.)

**Nutrition.** Nutrition research reflects the approach of the College of Family and Consumer Sciences to address human well-being across the life span, thus some projects focus on children and others on older citizens. Nutrition research also reflects the variety of research methods such as a) experiments using animal models and laboratory analysis of samples from human subjects, b) surveys measuring behavior and characteristics of population groups, and c) intervention studies to test the efficacy of educational programs and experiences.

The study of obesity by family and consumer sciences faculty is comprised of all three approaches. Example of A: Mechanisms that direct how energy is partitioned between heat loss and deposition as either fat or lean tissue is being studied under conditions of environmental stressors using an animal model. The goal of the project is to understand why humans do not necessarily respond to conditions that are expected to reduce body weight.

Example of B: The Georgia Childhood Overweight Prevalence Survey was designed to collect actual data from subjects (3,470 students in 4th, 8th, and 11th grades) rather than self-report data typical of previous studies of the incidence of overweight and obesity. The incidence of overweight among all age groups was 20% vs. 15% reported in a national self-

report survey. Children in rural areas had a higher prevalence of overweight, as did those in 4th grade compared to 8th- or 11th-graders. Detailed analysis of food and activity records will shed further insights on the contributing factors.

Example of C: A behavioral-based model nutrition intervention program increasing fruit, juice, vegetable, and low-fat food consumption among low-income African American children and their families tests a multi-component intervention designed to bring about behavior change in the home. The project is currently being conducted in 22 schools in Atlanta with the cooperation of School Food Service administrators. Shaping early food habits is considered to be a key factor in changing the customary high fat diets, and resulting overweight and obesity, to a long-term commitment to healthy food consumption and exercise.

Other projects in the area of nutrition include the following:

Study of how common vitamin deficiencies, such as B12 and D, adversely affect the health of older citizens. These impairments include hearing loss, cognition, and ability to do everyday tasks. The project is conducted in collaboration with several Georgia Area Agency on Aging units and the USDA Food Stamp Nutrition Education Program.

Examination of the effect of iron nutrition on oxidative stress and the interaction of iron and flavonoids will contribute to knowledge of mechanisms by which plant foods protect against chronic disease. Another study in the area of “functional foods” or “nutraceuticals” involves testing the effects of a fraction of grain sorghum wax to lower cholesterol and reduce weight gain. Beyond the goal of enhanced nutrition for consumers, these projects can help to identify food ingredients representing value-added commodities that either are or could be produced by Georgia farmers.

The area of proteomics involves identification of key molecules involved in zinc homeostasis, as well as other state-of-the-art proteomic techniques to better understand protein expression.

(Funding beyond Agricultural Experiment Station support for these and related projects comes from the USDA NRI competitive grants, the National Dairy Council, National Institutes of Health, National Institutes of Mental Health, various Georgia state agencies, and businesses, totaling more than \$3 million.)

**Consumer Behavior, Housing, and Poverty.** A study of consumer food purchases using on-line grocery shopping offers insights into an alternative food acquisition method most often used by more affluent, two-earner households. Other potential users include consumers for whom in-store shopping is difficult, for example, temporarily or permanently disabled consumers or consumers shopping for geographically distant family

members. On-line shopping may have implications for the volume of consumption of certain food items such as fresh fruits and vegetables and highly perishable products, and thus ultimately affect food producers and processors if the practice becomes more common.

Many parts of Georgia rely on manufactured housing to meet their housing needs; however, there has been little research on the demographic and economic profile of residents of manufactured housing and residents' attitudes toward their housing compared to those living in "stick-built" homes. Not only does manufactured housing meet consumer needs, it is a source of employment and economic development in many locations. This project led to an externally funded study sponsored by the Southwest Georgia Housing Development Corporation for an elderly housing market analysis and needs assessment in five counties in that region. Both projects are in the early stages.

The study of poverty and financial hardship among young families with children is testing long-held assumptions about traditional measures of poverty and its relationship to financial hardship (for example, credit problems and debt). Along with the study of financial hardship, this study seeks to develop a measure of financial resiliency and has implications for programs aimed at promoting savings and wealth accumulation among low- and moderate-income families.

### **Funding of Extension and Research Programs and Delivery Systems**

As Dr. Garber states in his presentation, "Maintaining funding for support of Agricultural Research and Extension programs is a constant challenge." That challenge is shared by Family and Consumer Sciences because of our inextricable connection to the Cooperative Extension delivery system--the best method of reaching the public with educational programs ever designed, especially the at-risk audiences that predominate Family and Consumer Sciences clientele. The decline in system-funded county agent positions assigned to Family and Consumer Sciences is especially troublesome at the very time that the state faces these and other challenges:

- the population has increased,
- the economic downturn puts more families at the margin or below the poverty line,
- chronic health problems are increasing along with the rate of obesity,
- the segment of the population in need of dependent care (children and the elderly) is growing.

The litany of challenges is long, and 62 of Georgia's 159 counties are without the services of a Family and Consumer Sciences Extension agent. On the research front, reductions in state funding have necessitated reduction in force of the support staff, cuts in graduate assistants, and reduced operating funds to conduct the research.



Faculty in the College of Family and Consumer Sciences have been aggressive and successful in securing external funding from USDA, other federal and state agencies, and private industry. Overall, all faculty in the College of Family and Consumer Sciences secured nearly \$14 million of external funding in FY 2002. Faculty with Agricultural Experiment Station appointments were responsible for \$1.3 million of those funds. For every AES dollar, they brought in \$4.40 to support the aforementioned research programs. That's a yield anyone would find desirable in today's economy!

FACS Extension secured over \$6 million in external funding in FY 03. In addition, \$1.5 million of USDA "pass-through" funds were used to match local and state funds in providing nutrition and food education to Food Stamp recipients and radon education and test kits to householders. FACS Extension's payoff is \$7.05 for every dollar of state and federal funds in faculty salaries.

This level of creativity and productivity is impressive. It is made possible by the superior quality of our faculty, support team, and the remaining FACS County Agents. However, our record of success is vulnerable due to the erosion of infrastructure support from the state and federal entities. Furthermore, the extensive list of collaborators involved in our projects require continuous communication and relationship maintenance. Replacement of basic financial support is critical to preserve and renew these wonderful systems for the 21st century.

### **"Wish List"**

Restore funding to the Expanded Foods and Nutrition Education Program by 10%.

Increase NRI funding targeted to priorities that meet address human needs.

Support the University of Georgia's request for ear-marked funding for the Center for the Prevention of Obesity and Related Disorders (GCORD, a.k.a "The Obesity Center).

**Again, thank you for the opportunity to report our successes in fulfilling the mission and serving Georgia's citizens, and to present our concerns about our ability to do so in the future.**